

ORAL HISTORY OF THE
TENNESSEE VALLEY AUTHORITY
INTERVIEWS WITH
HERBERT VOGEL

BY CHARLES W. CRAWFORD
ORAL HISTORY RESEARCH OFFICE
MEMPHIS STATE UNIVERSITY

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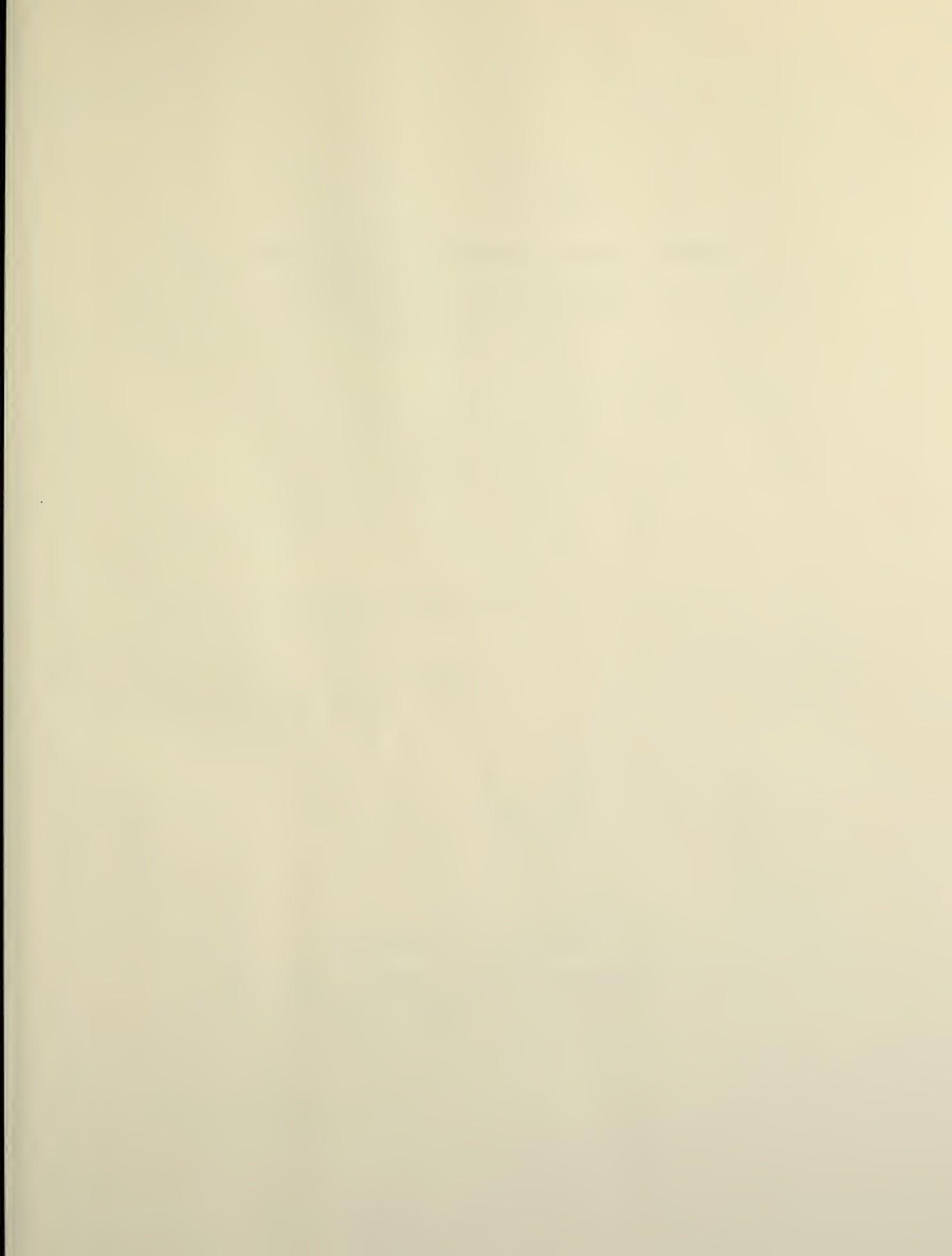
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JANUARY 9, 1970

BY CHARLES W. CRAWFORD

ORAL HISTORY RESEARCH OFFICE

MEMPHIS STATE UNIVERSITY

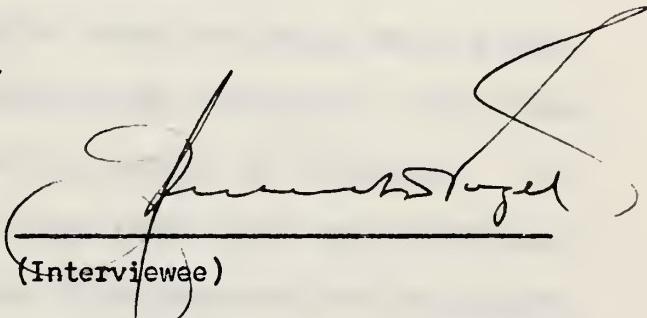
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PLACE Washington, D.C.

DATE Jan. 9, 1970



(Interviewee)

Charles W. Crawford

(For the Mississippi Valley Archives
of the John Willard Brister Library
of Memphis State University)

TENNESSEE ORAL HISTORY RESEARCH PROJECT AND ORAL HISTORY OF THE TENNESSEE VALLEY AUTHORITY. THE DATE IS JANUARY 9, 1970. THE PLACE IS WASHINGTON, D. C. THE INTERVIEW IS WITH GENERAL HERBERT D. VOGEL, FORMERLY THE DIRECTOR OF THE TENNESSEE VALLEY AUTHORITY, AND THE INTERVIEW IS BY DR. CHARLES W. CRAWFORD, DIRECTOR OF THE ORAL HISTORY RESEARCH OFFICE AT MEMPHIS STATE UNIVERSITY.

DR. CRAWFORD: General Vogel, let's sum up your early life, background, and experience before your appointment to TVA.

GENERAL VOGEL: Very well. I was born in Chelsea, Michigan, a town of about 2,000 people. It is fourteen miles from Ann Arbor, the seat of the University of Michigan. My early education was in the Chelsea Public Schools.

In 1918, with our entry into the World War, I was becoming anxious to get involved in the struggle. My father would not give me the authority to enlist at seventeen. He said, "When you're eighteen you can make your own decision."

When I turned eighteen I registered for the draft, and a couple of months later entered the University of Michigan in the Student Army Training Corps. My duties for the next two months, those being the last of the war, consisted largely of serving as a hospital orderly and on K. P. I can't think of anything very important that I did except to put a great big hole in the middle of my learning processes. In fact, I dropped so far behind in my studies that I found

GENERAL VOGEL: it difficult to pick up during the rest of the
(Cont'd.)

year. The second year was somewhat better. I found it necessary, however, to commute between the University and my home, fourteen miles away, and I really never did get the feeling of University life.

With this bringing on a feeling of restlessness I groped for something else. I even thought about going into the Army Air Corps as a flying cadet. I had enrolled in a newly formed, aeronautical division of the College of Engineering and my interest was aroused in both aviation and engineering. I knew very little about the Army and nothing at all about West Point. The opportunity to go there occurred suddenly in the form of an appointment by Congressman Earle C. Michener of the Second Michigan District. It was in the summer of 1920 that I entered the U. S. Military Academy. I graduated in 1924 with the commission of a Second Lieutenant in the Corps of Engineers.

My first assignment was at Fort Belvoir, Virginia, about twenty miles south of Washington, D. C., and at that time the principal post of the Corps. For the first year I served as a Company Officer in the 13th Engineers. The following year I was assigned as a student to "The Engineer School" and the year after that I again performed company duties.

In 1927, I was sent by the Chief of Engineers, along with several other officers for a postgraduate course at the

GENERAL VOGEL: University of California, from which I graduated in
(Cont'd.) 1928, with the degree of Master of Science in Civil Engineering.

While at the University of California I became friendly with Professor Charles Derleth, of Dean of Engineering, and our friendship continued until his death. One day, notice was received by the University that some fellowships were being offered for study in Europe under auspices of the German-American Student Exchange. I eagerly seized upon the idea and wrote a letter to the Chief of Engineers about it. This was indeed presumptuous for a Second Lieutenant, but the opportunity seemed too good to ignore and I could see no harm in asking. I didn't quite know what I wanted to study and I told the Chief that if I were permitted to go to Germany I would be willing to pay the travel expenses myself. How I would have done so I do not know because I never had a hundred dollars in the bank at one time before I became a Colonel.

My approach was naive, but the letter struck the desk of the Personnel Office and was referred to the Chief of Engineers personally, at a time when he was in the middle of a controversy with one John R. Freeman, a distinguished Civil Engineer, who had been trying to obtain legislation for the establishment of the hydraulic laboratory in the Bureau of Standards, Department of Commerce. Herbert Hoover, then Secretary of Commerce, supported Mr. Freeman's campaign. With that backing, the appropriate House Committee of Congress

GENERAL VOGEL: had approved the measure. General Jadwin, who was
(Cont'd.)

Chief of Engineers, hearing about this apparent threat to the autonomy of the Corp, went before the Senate Committee where the bill was under consideration, and made a strong appeal that the proposed legislation be not enacted.

During the course of these events my letter had reached the Chief's desk and at the next session of the Senate Committee he said, "Mr. Freeman has charged us with not knowing what they are doing in Europe, and has told you that he has sent students abroad under fellowships to study experimental hydraulics. I want to tell you that one of our young officers has been offered a fellowship from another source to study in Germany-and what is more we are going to send him." His forceful presentation resulted in killing the Freeman bill and opening the way for a laboratory to be built by the Corps. He sent two other officers over for a quick survey of the European scene and to report on the situation so that he could make a more intelligent report to the Congress at a later date. When I returned to the United States after my year of study in Germany, which had netted me a Doctor of Engineering degree, I was assigned to the Memphis district, where it was planned to build the controversial hydraulic laboratory. General Jadwin was a pretty tough-minded fellow, and being not fully convinced to the practicability of such a thing, stated that he wanted a very small amount of money spent on it. I was put in

GENERAL VOGEL: charge as a Second Lieutenant under supervision
(Cont'd.)

of the Assistant to the Chief Engineer of the Memphis district, who in turn would report to the District Engineer. Having had his fingers burned a few years before when a couple of professors tried to foist the results of a model study on him against his "better judgment". General Jadwin was not about to put somebody with uncontrolled authority in charge of experimental work that might controvert established theories. But, General Jadwin's term of office expired soon after that.

I arrived in Memphis early in October, 1929. I had left my wife in Washington, where our first boy was born, and had gone so far as to rent an apartment in Memphis. With plans underway for a laboratory at the site of the engineer shops in West Memphis, word came down that the new Chief of Engineers, General Brown, had decided to move the Mississippi River Commission to the lower valley of the Mississippi, with headquarters in Vicksburg. This being the case, he wanted the hydraulic laboratory set up there too. I moved to Vicksburg with my little family on New Years Day, 1930.

Now the whole situation was changed. No longer would we talk about a laboratory to be built in a confined space with little money. There would be space available for an experiment station of size sufficient to carry out worthwhile investigations on a respectable scale.

GENERAL VOGEL: Being near the President of the Mississippi River
(Cont'd.)

Commission and his assistants and having gained their confidence, I was able to work directly with them. I was encouraged by Major Reinecke, a man of broad vision, to develop plans for a station that would serve not only the Mississippi River but all rivers and harbors of the country.

DR. CRAWFORD: When do you think that decision was made, General Vogel. That was not the original plan was it?

GENERAL VOGEL: No, it was not the original plan. General Jadwin was an officer of the old school. I don't think he ever understood what a hydraulic laboratory could accomplish. His principal purpose was to keep such an establishment from being set up in the Bureau of Standards, where in the hands of scientists it might control engineering decisions. As it turned out, the Bureau got a hydraulic laboratory to perform tests relevant to its mission, while the Corps was enabled to build the "Waterways Experiment Station."

DR. CRAWFORD: At that time, General Vogel, while you were there, did you find any particular feeling in the Corps about the Tennessee Valley Authority. Were they particularly aware of their existence?

GENERAL VOGEL: We were certainly aware of its existence. TVA became a reality in 1933 and I recall that two of my assistants went over to work with it. We were in the middle of the great depression and it was probably this that gave life and strength to both TVA and the Waterways Experiment Station.

GENERAL VOGEL: Nobody had any money in those days and the most
(Cont'd.) capable people could be employed at low salaries. Even so, everyone employed in a Federal position had to return fifteen percent of his pay to the Government as a kind of a tax. There was a complete freeze on the employment of people under Civil Service, so I hired young engineers as laborers at one hundred dollars a month less fifteen percent. TVA had its own employment rules, so its employees were better off.

When I started out to build the experiment station, I had as an assistant, a young man, who was a graduate of the University of Michigan. He held the grade of Junior Engineer in the Vicksburg district and was assigned to me on a kind of permanent loan. Around him and another young man with very little engineering background I built a staff.

DR. CRAWFORD: Were you able to get the staff you wanted at that time?

GENERAL VOGEL: We got the staff we needed, though it wasn't the staff I wanted. I am sure that if I had had unlimited funds I would have gone out to find people who had already made their names in engineering. This would have been a great mistake, for such people would have pursued their activities along conventional and accepted lines. The young men that I had to take were energetic, daring and innovative. If they could have proved Sir Isaac Newton wrong they would have been glad to do so. Being able to pay only a hundred dollars a

GENERAL VOGEL: month; I was forced to recruit new graduates from
(Cont'd.)

colleges and I could get the best. I made a trip shortly after I had arrived in Vicksburg to the Universities of Illinois, Michigan, Cornell, M. I. T., and I think a couple of other colleges, and in each case I told the professors of hydraulics that, come spring, if he would send me his two top students I would pay them the salary I mentioned. We got several very excellent men in that way who are now at the top of their profession. That's how tough things were in those days.

DR. CRAWFORD: I know they were hiring engineers in the same situation in 1933, and they had no difficulty in getting them.

GENERAL VOGEL: The background of the depression, as I have said, greatly influenced activities on the Mississippi River; I am sure its effect on developments in the Tennessee Valley were also profound. However, I had very little knowledge at the time of what was going on over there, being so busy with my own affairs. Later, when I had been appointed to TVA, I found that many citizens of the Valley, particularly in Knoxville, had been resentful of this new government agency that came in and upset their economy. It is probably analogous to the situation in Michigan where I was born. There it came as a shock to the community when it was announced that Henry Ford was going to pay a minimum wage of five dollars a day. This was absolutely unbelievable and I can remember

GENERAL VOGEL: my father saying, "Just imagine, a man who sweeps
(Cont'd.) the floor is going to get five dollars a day." It must have created a similar shock when TVA moved into Knoxville and around Norris and began paying salaries that though really quite low, were in great contrast to what people had been previously earning. Twenty years later, when I arrived in Knoxville, there was still a general feeling that TVA had been an interloper. It was not greatly different in Mississippi.

DR. CRAWFORD: They felt they were outsiders with a different pay scale?

GENERAL VOGEL: Yes, and it upset the comfortable economy of those at the top.

DR. CRAWFORD: Did the hydraulic laboratory remain in Vicksburg?

GENERAL VOGEL: Yes, and I remained. I spent five years there, designed, built and operated what now has become the largest institution of its kind in the world. We developed new methods of research and experimentation, and solved problems that led to the control of the Mississippi River and the development of other waterways.

DR. CRAWFORD: Do you feel that the floods of 1927 had an effect on deciding to go ahead with this?

GENERAL VOGEL: Oh, very definitely. Except for the flood of 1927, there would have been no Flood Control Act in 1928. The Flood Control Act of 1928, of course, was the thing that gave the Corps the tremendous task of taming the Mississippi River. I think that altogether a fine job was done there. The

GENERAL VOGEL: Experiment Station figured in it, of course, (Cont'd.)

because as a result of our experiments, cutoffs were made on the Mississippi River eventually, and the effects of there is now well known.

In 1934, I was relieved of my assignment with the Experiment Station and was sent as a student to the Command and General Staff at Fort Leavenworth, Kansas. They had a two year course in those days, so I was there until 1936. Then I was assigned to the 3rd Engineers at Schofield Barracks in Hawaii, where I served from 1936 to 1938. In 1938, I was sent to be an instructor at The Engineer School at Fort Belvoir, and there I taught River and Harbor Engineering, Brigade and Division Tactics, Public Speaking, and even something of Motor Maintenance. Quite a jumble of courses. I even wrote a text on flood control engineering that was used in The Engineer School for a number of years.

In 1940, I was assigned by the Chief of Engineers as an assistant to the District Engineer in Pittsburgh, Pennsylvania. This was a very active District, for there had been serious floods on the Allegheny, Monongahela and Ohio Rivers in previous years and Pittsburgh had suffered greatly from them.

DR. CRAWFORD: Did you live in Pittsburgh?

GENERAL VOGEL: We rented a home in Mt. Lebanon, a suburb of Pittsburgh. The first year I was in charge of the Inspection Division, which supervised all construction work in the

GENERAL VOGEL: District. We were building Youghighenny, Crooked
(Cont'd.)

Creek, Mahoning, Tionesta and Loyalhanna Dams, and a fair number of other civil work projects were underway, including channel improvement at Johnstown, Pennsylvania.

The next year, 1941 to 1942, I was put in charge of the Engineering Division where the design of dams and other structures was carried out.

It was during this time that the attack on Pearl Harbor occurred. The officers who had served previously as district engineers were sent to military assignments and I was designated District Engineer in charge of all activities, including civil works projects and an enormously expanded military construction program, which included TNT plants, airfields, hospitals, underground storage tanks, and large depots. During this period we designed, built and dedicated the Berlin Dam as a war project. Of all the dams for which I have had responsibilities, this is the only one for which I was completely responsible from beginning to end.

In January, 1944, right after Christmas, I was sent to the Southwest Pacific to serve under General MacArthur. I went first in Brisbane, Australia as a staff officer in the Service of Supplies organization; then a year later I was sent to New Guinea to serve as Chief of Staff, Intermediate Section, USASOS. Later, following the landings in the Philippines, I commanded a base at San Fabian. Following that, I served as G-4 for a newly organized logistics command

GENERAL VOGEL: which was to support the invasion of Japan. The
(Cont'd.)

war ended about this time with the dropping of the bomb, and the logistical plans, upon which I had been working for a couple of months, were turned around to back up the occupation.

I moved to Japan with the first echelon of troops, and had been there for two or three months, when I was assigned to Buffalo, New York, as District Engineer. I arrived there in November in a howling blizzard, and took charge of district activities which included maintenance of, and new construction on, all the U. S. harbors, of Lake Erie and Ontario, and all flood control work within the drainage areas of those lakes on the U. S. sides. This included the design and construction of Mt. Morris and Onondaga Dams, and Veteran Administration hospitals at Erie and Buffalo. It was a pleasant three years-a very active three years-and at the end of it I was assigned to the Panama Canal as Engineer of Maintenance.

I served as Principal Assistant to the Governor on all administrative and technical matters relating to the operation and maintenance of the Canal and associated activities, including the Panama Railroad, heavy maintenance shops, commissaries, theaters, municipal and governmental functions, and prepared plans for the reorganization of canal activities, which resulted in the creation of the Panama Canal Company.

GENERAL VOGEL: Under the reorganization I became Lieutenant
(Cont'd.)

Governor of the Canal Zone Government and Vice President of the Panama Canal Company. My duties were about the same as when I was Engineer of Maintenance. Altogether, I was in Panama for three years, from 1949 to 1952. Then in 1952 I was assigned to Dallas, Texas, as Division Engineer of the Southwest Division of the Corps of Engineers, where I had charge of civil works and military construction in an area that embraced all or part of eight states. This was during a period of rapid aviation facilities expansion, following the creation of the U. S. Air Force, and the program involved much new construction and the enlargement of dozens of air installations in Texas, New Mexico, Oklahoma, Arkansas, and Louisiana. Also, there were large industrial plants to be built for the Army to enable it to meet new conditions of warfare.

During this period I served as a member of the Mississippi River Commission, and the Board of Engineers for Rivers and Harbors. Also, as Division Engineer of the Southwest Division I was ex-officer Chairman of the Arkansas-White-Red River Interagency Committee.

Our headquarters for the latter were in Tulsa, Oklahoma and the Committee consisted of representatives from eight states and some six Government departments trying to reach an agreement on the future development of the three rivers. It was a difficult assignment, because early in the game, before I came there, it had been agreed that no

GENERAL VOGEL: decision would be made except on a unanimous basis.
(Cont'd.)

There were those on the Committee who were not inclined to agree to anything, and they had to be approached obliquely to get any kind of rapport. I often thought it was a lot like trying to develop agreements between the United States and Russia. Eventually, however, we worked out a very good scheme, which has resulted in a lot of work on those rivers and in their valleys.

During the period that I was Division Engineer in Dallas I completed thirty years of service and I knew my time with the Corps was coming to a close. I had been promoted to the grade of Brigadier General, but rules for retirement were strict and I was thinking about what I might be doing next. Unbeknownst to me, the Chief of Engineers had asked of the Army that an exception be made and that I be not retired at this time. I learned later that Carr Forrest, President of the National Society of Professional Engineers, who had his office in Dallas and with whom I had become friendly, had written to the Secretary of the Army asking that my services not be lost to Dallas but that I be kept on for a longer period. On top of this, and again without my knowledge or consent, a telegram was sent in the names of the eight Governors of the States comprising the Arkansas-White-Red-River Basin Interagency Committee, to the President, asking him to intervene and not let my retirement become effective.

DR. CRAWFORD: Who do you suppose was responsible for that, sir?

GENERAL VOGEL: I really don't know. Each state had a representative of the Governor on the Committee. The Governor were nominally members of the Committee, but never actually attended the sessions. Presumably the representatives got their heads together and spoke on behalf of the Governors.

DR. CRAWFORD: You knew nothing of this?

GENERAL VOGEL: I knew nothing about it until I was shown a copy of the telegram the next morning. Anyway, a few weeks later I was sitting in my office in Dallas, Texas, in conference with a number of my District Engineers. Suddenly my Secretary entered with great excitement and said, "The White House is calling." This was, of course, an unusual event and I reached for the phone immediately. As I gave my name, a voice came on without preliminaries, announcing that it was Sherman Adams speaking. He said, "We have been talking about you up here and we wonder if you would accept the Chairmanship of the Tennessee Valley Authority?" Sometime before this I had told my wife, "I don't know what I am going to do when I retire from the Army, but I can tell you that under no circumstances will I ever accept a Federal appointment or work again for the Federal Government." So I answered, almost before he had finished, saying, "No, I wouldn't be interested in that." Well, that set him back. There was a long pause. I don't know how long' maybe only ten seconds. It seemed long. I think I could hear the clock

GENERAL VOGEL: ticking, with all those people sitting around the
(Cont'd.) room saying nothing. In this profound silence I could hear Mr. Adams saying, "You would be willing to come up and talk to us wouldn't you?" Now, an officer in Army uniform doesn't tell the man next to the President of the United States, "No, I won't go to Washington and talk to the President." So I said, "Yes, sir! I will be up and talk to you about it."

When I got home after work I told my wife about this, adding, "But don't give it a thought." I had previously had a couple of feelers for employment after retirement, one of which was from the Association of Railroads. The other one was a sort of half-way approach by the Edison Institute, an arch rival of public power. These were both hanging fire, but I was more interested in the Executive Vice-Presidency of the Association of American Railroads, whose headquarters were in Chicago. I would not have wanted to live in Chicago, but the job interested me. So I told my wife, "Now don't worry about this thing. I will go up to Washington and give them a quick brush off; then I will come back home by way of Chicago. I will probably be there for a day talking to those people in the Association of American Railroads."

Well, I got to Washington and I was received by Sherman Adams. He was a brusque man and he had everything fixed up. I was to go over and talk to the Chairman of the Atomic Energy Commission, and then come back and speak to the President at eleven o'clock and give him my decision.

GENERAL VOGEL: The reason I should talk to the Chairman of the
(Cont'd.)

Atomic Energy Commission was that this was right at the time
of the Dixon-Yates hassle. That is what made the business
of finding a Chairman for TVA so difficult. Anyone considered
would be suspected of bias one way or the other.

DR. CRAWFORD: What date was this, sir, your trip to Washington?

GENERAL VOGEL: Well, this was about June of 1954.

DR. CRAWFORD: Who was Chairman of the Atomic Energy Commission?

Was it Strauss?

GENERAL VOGEL: Yes, and the General Manager was General Kenneth
Nichols, an old friend of mine. In fact, while I was
Director of the Waterways Experiment Station, the Chief of
Engineers had sent a half dozen young officers of the Corps
down there one summer to learn the elements of experimental
hydraulics. Nichols was among this group, and over the
years we had become close friends.

I must watch now, because I am likely to slip back
and forth among the events that followed each other so closely.
As I have said, I went to Washington and talked to Sherman
Adams and he sent me over to talk with Strauss. I had a
preliminary discussion about the Dixon-Yates situation and
what it amounted to. I went back then to the old State,
War and Navy Building with Roland Hughes, who was Director
of the Bureau of the Budget. Dixon-Yates was a very contro-
versial thing and many people were concerned about it.

DR. CRAWFORD: What did Mr. Strauss think about the Dixon-Yates
matter?

GENERAL VOGEL: Well, of course, he was all for TVA supplying power to the Atomic Energy Commission however it could be done and it seemed apparent to him that the only way to do it was to contract for a new plant to be built by private power interests. The new plant would supply the City of Memphis and, relieved of that obligation, TVA would be able to meet the foreseeable needs of AEC. Congress had made it very clear to all concerned that it would provide no more appropriations to TVA for the construction of thermal generating facilities. Before going into that, however, I would like to say that from all the things for which I had responsibility in TVA, there were three achievements from which I derive the greatest satisfaction. First, was working out its financial future. Second, was bringing about harmony, not only in the Valley, but with the private power interests who surround it, and third was the development of an attitude among the people of the Valley that made them eager to help themselves with the guidance of TVA.

DR. CRAWFORD: When did you decide that those were the primary needs?

GENERAL VOGEL: Only as the years went by. You don't decide any of these things in advance. All that is by way of digression, however, so let us go back to the day I went to Washington. At that time I knew very little about the background of the TVA or anything connected with it. I had some idea of the general picture, yes; but as to the philosophy of TVA I had had no instruction whatsoever. I did know that the Corps

GENERAL VOGEL: of Engineers had previously held responsibility
(Cont'd.)

in that area and that during the period following World War I they had made a study of the river and its possible development. The Corps of Engineers made a great mistake though. They developed two plans-alternate plans. One, for a series of low dams which would suffice merely for navigation, and another for a series of high multi-purpose dams that would provide also for flood control and power generation. Somehow, they failed to put a finger on one or the other. They simply gave both plans to Congress and asked Congress to decide. Well, Congress can never decide a thing like that. So the question remained unanswered and the door was opened for new leadership. This, with needs created by the depression, set the stage for introduction by Senator Norris of legislation to create the TVA.

DR. CRAWFORD: Having worked for both, General Vogel, did you notice any resentment on the part of TVA by the Corps or the Corps by the TVA?

GENERAL VOGEL: No, I don't think so. In fact, as soon as I got there our relationships became well established. I am rather amused now, looking back to when my appointment was announced, I received a letter from General Sturgis, Chief of Engineers, who had been a very close friend of mine all my commissioned service. He congratulated me on the appointment and then in closing said, "I think we had not better be too closely associated in the future in that our relationship might be

GENERAL VOGEL: misunderstood." So there was a little feeling of
(Cont'd.)

awkwardness at first, but it quickly disappeared and, within a few years, the Chief of Engineers sent a couple of young officers to TVA to study our methods.

I am sorry to jump around like this, but without an outline before me to keep the events in order I find myself going back and forth. There has always been a question in my mind as to why I was selected in the first place. As I have said, the several Governors of the Arkansas-White-Red River Basin Commission had sent a telegram to the President, and the President of the National Society of Professional Engineers had written to someone. Just how the Chief of Engineers figured in it, I do not know.

The story told by Drew Pearson was that a secretary in the office of Sherman Adams had noted the several letters and telegrams urging that I be not retired from Federal service. At the same time the President's office was looking for someone not too controversial to be appointed chairman of the TVA. They had interviewed and talked with a dozen different people without coming to a decision. In fact, Clapp had left office in May and they still had not come to any conclusion in June. So, it was reported that this Secretary of Sherman Adams turned to him and said, "Why don't you kill two birds with one stone. You have all these telegrams and letters asking that General Vogel be kept in the service and you also have the problem of filling a vacancy

GENERAL VOGEL: in the Tennessee Valley Authority. Why don't
(cont'd.)

you just put him in there?" How true this is, I don't know,
but it might have some background of truth to it.

Well, let me get back to that fatal day in Washington.
I talked with Sherman Adams; I talked with Admiral Strauss,
and I had a very brief interview with Roland Hughes, Director
of the Budget.

DR. CRAWFORD: What sort of briefings did they give you? Did they
attempt to persuade you to take the job?

GENERAL VOGEL: No, I wouldn't say so. They were primarily trying
to bring me up to date as to what the Dixon-Yates controversy
was all about. It was not a very complicated thing, not a
difficult thing to understand, but they used a good deal of
time to explain the details.

To put this in its proper context we have to go
back in time to the Second World War when the atomic bomb
was under development. When a plant had been established at
Oak Ridge and it was foreseen that large amounts of electric
energy would be needed for its operation, TVA had a capacity
of three million kilowatts of hydro power and this seemed
a great amount; sufficient at least to service the needs
of the Atomic Energy Commission. Well, along with the
military needs of that period there was also a tremendous
growth of industry. Factories were being built in the Valley
and they were creating a growing demand for larger amounts
of electric energy. With the hydro potential about exhausted,

GENERAL VOGEL: TVA had to get to the business of building steam
(Cont'd.)

plants. The largest of these was at Kingston, Tennessee, and its output of power was almost exclusively for Oak Ridge.

Well, after they had been building steam plants for a period of time and the war had ended, the private power people began to ask why in the world TVA should have the benefits of Government appropriations for the expansion of power facilities when the same treatment was not accorded other regions of the country. It was a pretty valid argument. If this was going to be a continuing thing-this building of thermal plants-it would create a serious drain on the tax-payers. Speaking of the Government as a whole, perhaps we were more money-conscious in those days than people are today. Anyway, the Senate, had issued an edict-and it was a Democratic Senate, too-that there would be no more appropriations for the building of power facilities in TVA.

This was the basis for the action that was taken by the Office of the President. Roland Hughes, Director of the Budget, was a banker, who had come down from Boston. He was a good man; there wasn't anything vicious, or mean or undercutting about him. He did not really understand Government, though, or the ways of Government as opposed to those of private enterprise. He did a number of things that reacted badly against the administration. For instance, he had Adolf Wenzell, a previous associate from the First Bank of Boston, come into the Bureau of the Budget and look around

GENERAL VOGEL: for information about TVA. He didn't have to do
(Cont'd.)

that. He could have gotten the same thing, of course, just by sending a man directly to TVA to work it out, but he didn't understand that. In Government you do things in the open. It is not like business, where secrets are kept often behind locked doors.

When word got out about the Wenzell report, it stirred up the people in the Valley. It stirred up the Democratic Senators and Congressmen, who found political value in posing as the champions of TVA, and they made it clear that they were not about to approve any appointment of a new TVA chairman by the President without an argument.

Incidentally, when years later I took an assignment in the World Bank as Engineer Advisor, I became closely associated with Adolf Wenzell who was a staff member there. I found him to be a fine, conscientious person and we have been good friends for a long time now.

Going back again to that day: After talking to Roland Hughes, who outlined the general situation, I returned to the office of the President, and at eleven o'clock he came in. He had just returned from the funeral of a near relative. I was introduced to him by Mr. Adams. The President was very gracious and his first words were, "Have we ever served together?" It wasn't, "Have you ever served under me?" but, "Have we ever served together?" I said, "No, Mr. President, this is my first meeting with you." He outlined what he had

GENERAL VOGEL: in mind and told me he would like me to accept the
(Cont'd.)

appointment. I remember standing there with all the things I had said before going through my mind--how I was going to "brush them off real quick and then come back home." I found myself without words for the moment. Then I said, "Mr. President, this is nothing that I would have asked for. I have served our Country for thirty years and would like now to do something different. If you feel, however, that it is in the National interest then I cannot refuse." He replied, "I think it is, and I would greatly appreciate your acceptance." I nodded. I can remember him then putting his hands in his pockets, turning around and walking the length of the room, coming back again to me, and finally saying, "You know it's a nine year appointment." By this time I was speechless. I could only shake my head in a negative way, but I was committed. Then he told me, "All I want you to do is use your heart, your brains, and the facts, as a basis for any recommendation which you may bring to me in the future." I said, "Yes, sir."

A few days after that, having returned to my home in Dallas, I was called back to Washington. There were several sessions with Presidential advisors during which we discussed how to pave the way the Democratic Senate for the confirmation hearing.

DR. CRAWFORD: About what time was that, sir? How long after your first meeting?

GENERAL VOGEL: Oh, I would say a week. The meetings were not lengthy and they served the useful purpose of getting me acquainted with the White House Staff.

DR. CRAWFORD: Did you feel any of the members of the committee were hostile?

GENERAL VOGEL: There was only one who exhibited what I would call hostility. That was Senator Wayne Morse, who was extremely opposed to my nomination on the basis of my probable adherence to policies of military command. He knew I was an Army officer, of course, and he felt that the President was not friendly to TVA and that I would accept orders from the President unquestioningly. Senator Gore raised a lot of questions but I can't say that he was antagonistic. Insofar as the others were concerned, they were all very much on my side. Well, strangely enough, the next morning after the hearing Senator Morse had to go to the hospital for treatment of a sore throat. He was gone only for the morning, but during that time the Senate Committee reported on my nomination and it was unanimously approved. This so burned Morse that when he came back he wrote a whole page into the Congressional Record indicating his displeasure, but the record shows, nevertheless, that my appointment was unanimously approved by the Senate.

Several weeks intervened between the time of my confirmation and my actual assumption of office on the 1st of September. During that space of time, I had to go through

GENERAL VOGEL: the process of selling our house, closing out my
(Cont'd.)

responsibilities in Dallas as Division Engineer, and saying
good-by to our friends. Then my wife and I, with our younger
son, drove from Dallas to Knoxville, Tennessee.

We arrived in Knoxville on the 30th of August, or
it may have been the 29th, but I know that on midnight of
the 31st my retirement as an officer in the Army became
effective and at eight o'clock the next morning, I was
sworn in as a Director and Chairman of the Board of the
Tennessee Valley Authority.

DR. CRAWFORD: Where were you sworn it? At the New Sprinkle
Building?

GENERAL VOGEL: Oh, yes. That has been the custom from the
beginning.

DR. CRAWFORD: Did you take the usual TVA oath?

GENERAL VOGEL: Certainly.

DR. CRAWFORD: I believe that there were some provisions added.

GENERAL VOGEL: A belief in the principles and the feasibility of
the Act. That is required of all appointees to the Board
and it never worried me. I have been a believer in the
Act since I learned what TVA was all about. Although every-
thing was pleasant on the surface at the time of the swearing
in ceremony it became quickly apparent to me that I would
find difficult days ahead. The Dixon-Yates contract had
been signed, providing that the two firms would together build
a steam plant at Memphis. This steam plant would supply the

GENERAL VOGEL: needs of the Tennessee Valley that could not
(Cont'd.) otherwise be met, and would release a similar amount of power for the use of the Atomic Energy Commission in their plant at Oak Ridge. Although this agreement had been signed as between the Government and Dixon-Yates to supply power to the TVA area, the contract contained a provision that it would not become effective until another contract had been worked out between the Tennessee Valley Authority and the Atomic Energy Commission. How this could be put together so that the rights of all could be preserved was a problem, of course. It was going to require a considerable amount of study of the costs involved. The two directors, with whom I was to work, Drs. Harry A. Curtis and Raymond R. Paty, had taken the position that under no conditions would they meet with the Atomic Energy Commission to discuss the terms of such a contract. Even though they had been ordered by the office of the President to do this they still refused.

DR. CRAWFORD: Do you know what the reasons were?

GENERAL VOGEL: Well, they felt that the encroachment of private power in the Valley to supply the city of Memphis, was an entering wedge whereby the private power interests would gradually work their way into the Valley like the camel into the Arab's tent. Eventually, the Valley would be divided as between private and public power and of course, you can't operate like that. Power service to any area must be mono-

GENERAL VOGEL: polistic. There is no question about it. It
(Cont'd.)

was actually a bad arrangement, but circumstances required some kind of stop-gap measure. There was no money to be made available by appropriations. That fact had been made crystal clear by Senate spokesman. The power needs were growing. It was known that they were going to keep on growing at the rate of about ten percent a year.

The big mistake was that the Administration in Washington took it upon itself to enter into this arrangement without consulting TVA. There was never a feeling of rapport between the Tennessee Valley Authority and the Administration. They had never gotten together and talked over these problems, and I do think they could have been talked out.

I took the position, and quite strongly, that when the President of the United States asked two Government agencies to sit down together and talk about something to see if they could find a solution, that it did not behoove one to say, "No, I won't talk to the other." I thought this was just too dogmatic. It was certainly not the way to get to an understanding. So, when I had been in office only one day I felt the first order of business was to make some kind of a contact with AEC.

DR. CRAWFORD: Had you discussed that with Admiral Strauss?

GENERAL VOGEL: Earlier, yes. But not at this particular time.

I was probably naive. I made no appointment to talk with Admiral Strauss. I simply got on a plane and went to

GENERAL VOGEL: Washington. When I got to the offices of the
(Cont'd.)

Atomic Energy Commission I found that Admiral Strauss was not in, but that General Nichols was. I have said that I had known Nichols for years. He was the General Manager. I was not planning to enter into any final deal; I wished only to establish a basic working relationship so I talked with Nichols I suppose a couple of hours, going into the various problems that existed between the Tennessee Valley Authority and the AEC, and the need for power by AEC. After considerable discussion, I said, "Well look we're not going to settle anything here between us. We can't do it anyway. It is a matter for our respective Boards, but let's approach it on this basis: that whatever arrangement is worked out it will not put a burden of extra cost on the Federal Government, nor will it force the Tennessee Valley Authority to bear any cost that would not be normal for it." So, with this agreed upon I left. As I came out of the office there were a number of reporters waiting to see me. They said, "What was your meeting all about?" "Well," I said, "We've come to a meeting of the minds-the basis of an understanding of how to approach the problem." It was reported immediately in headlines that General Vogel and General Nicholas had come to a meeting of the minds. There were cartoons that showed these two military dictators over-shadowed by an ogreous President, who was about to sell the TVA down the river.

Well, I went back to Knoxville. I'm not sure if

GENERAL VOGEL: it was the next day or not, but I can remember we
(Cont'd.)

were at a dinner party, my wife and I, and the Patys were there, too. Now, Dr. Paty was a nice sort of chap and he had a lovely family. He wasn't the kind of person to take a strong or fixed position. The obstructionist attitude that had been previously evidenced was all on the part of Dr. Curtis I am sure. Curtis was a loveable curmudgeon. They were both academic people, both professors, and you know they run to all kinds.

DR. CRAWFORD: Yes sir.

GENERAL VOGEL: Curtis use to get his greatest pleasure out of mathematical problems. He had worked "pi" out to some hundred decimal places, and with the advent of computers, he said, "Just think, you can now carry this thing out to probably a million decimals." It was the kind of thing that he enjoyed the most. Once he made his mind up about something he was awfully hard to change. He was an agnostic. I won't say an atheist, but he wanted proof for everything. I grew to like both Curtis and Paty very much as the days went on but we had our quarrels and arguments along the way. Still, I think, there was mutual respect.

Going back to the evening when we were at the party with the Patys after my return from Washington, the telephone rang and Dr. Paty was called to it. He came back to me and said, "That was Curtis on the phone. He is terribly upset. He has read the news dispatches that you have come to a

GENERAL VOGEL: meeting of the minds with AEC and he wants a
(Cont'd.)

meeting of the Board tomorrow morning. I know it will be a Saturday, and I am sorry." I said, "Well, I'm not going to call any meeting of the Board at this hour for Saturday. Tomorrow morning everybody will be off from work." He said, "As a personal favor to me I wish you would. Curtis is really upset, and I think it will make for a bad start if we don't get together right now and iron things out."

DR. CRAWFORD: Was that to be your first meeting?

GENERAL VOGEL: Our first meeting and on a Saturday, unscheduled, calling everybody in from their homes. Well, anyway, I told them to set it up for ten o'clock the next morning. We went into the board room and the staff was all present. The three Directors, Curtis, Paty and I, sat at the head of the table. It wasn't as big a staff as they have now. We didn't have as big a table nor as big a room, either. As the meeting started, Curtis opened up on me. "It was a disgraceful thing you did," he said, "You let us down badly by making such a statement to the press, and furthermore," he said, "I think you ought to be ashamed of yourself, that you, the Chairman of the Tennessee Valley Authority, descended to talking to the General Manager of AEC, and not to the Chairman of AEC himself." Well, he went on that way until I finally interrupted him and said, "The staff is dismissed. The Board will go into executive session." As soon as the staff had left, and just the three of us were there, I turned to Curtis

GENERAL VOGEL: and told him in half a dozen ill-chosen words
(Cont'd.)

what I thought of him. He replied in kind. We all stood up and walked out. And that ended the first meeting of the Board of Directors.

DR. CRAWFORD: That was quite a beginning.

GENERAL VOGEL: It was quite a beginning, but, as I say, things worked out a little better after that. We did sit down with AEC, or rather our power people did. I never went to any of the meetings. None of the directors did. I do not know how many meetings were held, but there were a good many. The talks dragged on and on. I don't know whether they ever would have come to a solution.

But, about this time the Mayor of Memphis got into it. That was Mayor Toby. Do you remember him? Now, this has a background too. It's too bad I can't tell this as a single connected, related story but I have to keep jumping back into the past and then into the future.

DR. CRAWFORD: It's very complex I know, but we will break the paragraphs off.

GENERAL VOGEL: It's not too complex really, once you can see the overall picture. Going back now some twenty years to when TVA was first created, they signed a contract with Memphis and if I remember correctly, it was the first power contract signed by TVA. This contract permitted the City of Memphis to buy power and sell it at their own rates—that is, with a surcharge on the price paid to TVA. Now, this was a very

GENERAL VOGEL: nice arrangement from the standpoint of the
(Cont'd.)

people in political control in Memphis, because the surcharge served to reduce taxes. It made the tax structure of the city very nice, very pleasant, and it was a flower in the buttonhole of the Mayor.

Well, prior to Dixon-Yates, the TVA had already announced that when the contract would be renewed, Memphis would not be permitted to apply a surcharge; they would have to sell power as all the other distributors, without a surcharge. This was a shock to Mayor Toby because it would obviously force a raise in taxes. That isn't good for any politician to face, you know. So Mayor Toby jumoed into the fracas, announcing publicly that to save TVA, Memphis would build its own electric generating plant and this make Dixon-Yates unnecessary.

Meantime, up in Washington the President and his staff were looking for some way to get out of the whole thing and save face in the process. When they read Mayor Toby's statement in the paper they saw a way out.

My wife and I were at a dance at the Cherokee Country Club that evening and I was called from the main ballroom to the phone. It was Roland Hughes who asked about Mayor Toby's threat-or promise-to build a generating plant in Memphis. "What's this about the Mayor," he asked, "Does he really mean what he says about building a steam plant if we drop the Dixon-Yates deal?" "Well," I said, "I don't

GENERAL VOGEL: know whether he does or not. He said it though,
(Cont'd.)

that's for sure." He said, "I wish you would get in touch with him right away and find out if he means it." And so, right there at the party, with the music going, I called the Mayor of Memphis. I said, "Do you really mean what you said, Mr. Mayor?" He said, "I sure do."

Feeling that Toby was committed I called Roland Hughes back and told him so. He said, "All right, you get in touch with him again, and Monday morning you bring him up here. We will meet with the Attorney General and if he stands by his word we will drop the Dixon-Yates deal." So, I called Toby and we set up the date. We went to Washington, and met first with Brownell in his office, then went over to the White House to see the President. Mayor Toby repeated that Memphis would build a steam plant. President Eisenhower said, "Very well. We will drop the Dixon-Yates contract right here." We shook hands all the way around. I have a picture of that as it appeared in the evening paper. Everyone is smiling, everybody is happy except Mayor Toby and he looks as though he does not quite know what hit him.

DR. CRAWFORD: He was left with the responsibility of carrying it out.

GENERAL VOGEL: He was left with the whole thing lying in his lap. The President was happy, Roland Hughes was happy, I was happy, Brownell was happy, and Dixon-Yates became a thing of the past right there.

DR. CRAWFORD: Do you remember what date that was?

GENERAL VOGEL: No, I don't.

DR. CRAWFORD: I'm sure it's a matter of record.

GENERAL VOGEL: I'm sure it is.

DR. CRAWFORD: Did you believe, personally, that Mayor Toby would go through with his promise?

GENERAL VOGEL: Oh yes. He was publicly committed and we were sure that he would go through with it. I had confidence in him and the President did too. As you know, Memphis did build its own plant though it never operated economically. Several years later it was taken over by TVA.

Although the Dixon-Yates contract had been killed, and a solution found for the problem of the immediate future, I knew we had to develop some long-range plan for getting money to build generating facilities that would be sufficient to meet the rapidly growing demands.

Now, I am no financial expert. I don't have much knowledge of those things, but I did know that there are only three ways of getting money when you don't earn enough to meet future needs. That's to beg, borrow, or steal. Well, we had been begging from the Congress these many years and finally that had been ended by the Senate saying there would be no more appropriations. I ruled out stealing on the basis that honesty is the best policy. That left only borrowing. The question then arose: how to borrow? Well, a corporation needing money borrows by selling bonds.

DR. CRAWFORD: Did you consult the legal staff about this?

GENERAL VOGEL: Oh, I think we all talked about it off and on and the idea took hold by degrees. We had to get the blessing of the Bureau of the Budget and the President's office but that came quite easily. Details were worked out very largely by our power people. They did most of the work, assisted, of course, by our Legal Department.

DR. CRAWFORD: Were they able to forecast income and expenses?

GENERAL VOGEL: Oh, sure. We could do those things. But then I must tell you this: as plans progressed we were fortunate in the appointment of Arnold Jones as a Director. He succeeded Dr. Curtis whose term of office ended in 1957.

DR. CRAWFORD: His background in accounting in the Budget Bureau, I suppose, was helpful?

GENERAL VOGEL: Very helpful in many ways, but that's getting ahead of the story a bit. The first thing was to start on something that would provide a means of financing into the future. The decision was to seek the authorization of Congress to sell revenue bonds and this the President agreed to in principle, so all of our energies for that moment on, really from the time that the Dixon-Yates contract was cancelled and Mayor Toby picked up the pieces, our problem was how to finance future large scale developments. It took four years to get the necessary legislative authority-almost five, in fact.

DR. CRAWFORD: Were you confident that the bonding program could be repayed, that TVA could expand their sales and would pay for it?

GENERAL VOGEL: Oh, yes. We were expanding so rapidly and the needs were so great that I even felt we wouldn't have to raise the cost of power. Now, that did not prove to be the case, but other factors have intervened. Interest rates in the last few years have become so high that bonds have become costly to put on the market. Moreover, the cost of fuel has increased inordinately.

DR. CRAWFORD: In the meantime the rates have remained quite low?

GENERAL VOGEL: They are still about one-half the national average in spite of the several increases.

DR. CRAWFORD: There is one thing that seems to me was the key point; that was the Presidential approval. How did that come about, General Vogel?

GENERAL VOGEL: Just in conversation. Not with the President, but with Roland Hughes and others in the Bureau of the Budget. From the time that the President made his basic decision all the details were worked out with the Bureau of the Budget. But the Bureau of the Budget Staff was very much opposed to a blanket, or unrestricted authority for the TVA to sell revenue bonds. They wished to keep themselves in a position of control.

DR. CRAWFORD: I think there is a built in conflict with the Bureau of the Budget and the Tennessee Valley Authority.

GENERAL VOGEL: That's right.

THIS IS INTERVIEW NUMBER 2 WITH GENERAL HERBERT D. VOGEL.
THE DATE IS JANUARY 9, 1970.

DR. CRAWFORD: General Vogel let's go ahead from where we were on stopping point of number 1.

GENERAL VOGEL: We were talking about the basic conflicts between the Bureau of the Budget and the TVA with respects to a bill for the financing of the Tennessee Valley Authority's Power Expansion Program.

We have to jump a little bit here. All I can say is there were a multitude of hearings, exchanges of correspondence, visits to Washington and discussions with the Director of the Budget. I can recall one conversation in particular as we were working out the details of the financing act and we had come up with the proposal that the ceiling be set at a billion dollars. The Bureau of the Budget in reviewing this had reduced the amount to five hundred million dollars. I was discussing this point among a number of others relating to the provisions of the proposed bill with Roland Hughes, and I told him that five hundred million dollars was really too small an amount. He said "A billion dollars I couldn't go along with." I asked why not. "Well," he said, "It just sounds like such a hell of a lot of money." So I proposed a compromise and he agreed to split the difference. That is how we arrived at seven hundred and fifty thousand dollars-just because a billion sounded like too much money. Today I don't suppose anybody would worry

GENERAL VOGEL: about a little thing like a billion dollars but
(Cont'd.) things were a little different then.

Well, anyway the time passed and in 1959 legislation was enacted and sent up to the President for signature. I waited several days, but received no word about it. I knew, however, that it had gone from the Congress to the President, so I telephoned Jerry Morgan, who was the Legal Advisor to the President and I said, "Jerry, what has happened to that bill? When is the President going to sign it?" He answered, "He is not going to sign it." I said, "You can't mean that. We've been struggling with this thing for five years. What do you mean he's not going to sign it? If that's the way things are I want to talk to the President." He replied, "Save your breath, save your time, save the Government the cost of sending you up here, because under no conditions will he sign the bill as it stands. It contains a provision that gives the Congress an authority over and beyond that given to the President and he has been advised by the people in the Bureau of the Budget that he should not sign it, and he's not going to."

This was along toward the end of a week, probably around the first of August or the last of July. I wrote a telegram and sent it directly to the President requesting an interview on the subject, and asked that he take no action until he had talked with the members of the Board. I think it was the last day of the week, Friday, that I got a reply

GENERAL VOGEL: saying that an appointment had been set up. It
(Cont'd.) would be for the following Wednesday at 11:15 a.m. I was informed subsequently another meeting had been set for 11:45, when the President was to meet with some Senator and pin some medals on some war veterans. This gave me only half an hour to present the whole case. I remember talking to my wife before I went up there and I said, "I just pray the Lord will give me guidance and put the right words in my mouth so we can really convince him and get his signature to this bill that is so vitally important." The whole future of the Tennessee Valley, its development, its ability to bring in industries to support the needs of industry with power, were hanging on the bill right then, because there was no other source of money to be found. Remember, we had worked on this thing for five years and to start all over again would be - I don't know; I just couldn't imagine the consequences.

While I waited with the other two Directors, Arnold Jones and Brooks Hays, in the President's office, the President entered. The Bureau of the Budget Staff, who had advised him to veto the bill, had arranged that this meeting was to immediately follow a press conference. You know a President coming out of a press conference has been harrassed to the point that he is not in the best of moods. As he came into the room I introduced him to my fellow members and then I said, "Mr. President, you know this is a kind of happy occasion - really an anniversary for me." "Oh, what do you mean?" he

GENERAL VOGEL: asked. "Well," I said, "it was five years ago, just
(Cont'd.) about this time, that I stood here in this office and you asked me to assume the Chairmanship of the Tennessee Valley Authority. I told you I didn't want to take the job; that I had other plans. You said, "I wish you would." And I replied, "Well, Mr. President, if you say that it is in the public interest I can't refuse." And you said, yes, you thought it was in the public interest, and so I went along with it, and then you gave me what I have considered the best directive that I have ever received, and maybe that has ever been given to anybody. "What was that?" His curiosity was aroused. "Well," I said, "You told me to use my heart and my brains and the facts in arriving at any recommendations which I might in the future make to you. I have come here today to make such a recommendation." "Well," he said, "sit down." The whole atmosphere changed. I sat opposite him at his desk. The other two directors were sitting to one side and further beyond them on the left was Jerry Morgan, the President's legal counsel. Jerry never entered into the conversation at this time. He simply sat there and listened. Well, I started out and talked, and I guess I talked for thirty minutes without interruption. Finally as I tried to make it clear to the President how important this whole thing was to the future development of the Valley and that segment of the United States-a very important segment-he broke in, somewhat impatiently, with, "Everything you say is true. I know it to be true. I want

GENERAL VOGEL: to sign this bill worse than I can tell you.
(Cont'd.)

Furthermore the private power interests are anxious for me to sign it. I've been getting calls in my quarters at night from the private power people, even after I am ready to go to bed, urging me to sign the bill. They would give me a golf course in Georgia if I signed it! But I can't, I can't do it." I said, "Why, Mr. President?" We each had a copy of the bill in front of us as we faced each other across the desk. "Because," he began, "---Well let me refer you to these two paragraphs. One paragraph gives an authority to the Congress, stating that it has a right to veto or deny any request for the sale of bonds by action within ninety days. On the other hand the President is denied such a right. He is only a messenger; he has to pass the budget on without comment to the Congress. Now, there has always been a tug of war between the Executive and Legislative offices of Government and I am not going to have it said years from now that the office of the Executive was first eroded by the actions of Eisenhower. So you see, I can't sign it, I can't do it."

Well, I don't know, I guess this is where the Lord answered my prayers. I reached into my pocket, took out my pencil and said, "What do you say we strike out both paragraphs. Let's just cross them both out." He said, "That's a good idea. Let's do that." Jerry Morgan sitting over by the wall appeared propelled from his chair, "You can't do that," he said. I asked, "Why not, Jerry?" Well, the Lord put the wrong words

GENERAL VOGEL: in his mouth. Instead of saying that the President
(Cont'd.)

had only one of two alternatives, either to veto or to sign, he said, "Because the elimination of those paragraphs will eliminate you from the provisions of the Government Corporation Control Act." I said, "Jerry, they have no relationship whatsoever to that. We will be subject to the Government Corporations Control Act, regardless of this Bill."

By this time the President, who was anxious to get to his next appointment, stood up, came around his desk, and said, "O. K., that's fine." He put his arm around my shoulder and said, "You boys go and work this out now. That's fine. We'll just strike out those paragraphs." When we were outside the door Jerry turned to me and asked, "What have you done? What have you done!" I said, "What do you mean Jerry?" And he said, "You know we can't change this bill. The President has power only to veto or sign. He can't change it." "Well," I said, "You heard what the boss said, didn't you? You've got to do it." He replied, "Look, we've got to talk with the Bureau of the Budget. I'll get the boys over this afternoon and we'll have a meeting here at one o'clock." I said, "Jerry you can have all the meetings you want but I am not going to attend, nor are any of the other TVA people going to be there. I have talked to the Bureau of the Budget for the last time. Now, I'm going back to the TVA office in the Woodward Building. You have my telephone number and can call me this afternoon when you have things worked out."

GENERAL VOGEL: Then we went back to the office and we knew we had
(Cont'd.) made it. We didn't know just how, but we knew we had made it. So we went to a little German restaurant on Fifteenth Street and Brooks Hays in his exuberation, even though a Baptist preacher, ordered a martini. We kidded him about that for we were all feeling pretty good. Later, we went back to the TVA office, but there had been no calls from the White House. About three o'clock I called the office of Jerry Morgan. I asked, "Jerry, how are you coming along?" He said, "We're just going around and around, we can't come to anything. There is just no way to do this thing." "Well," I said, "All we want you to do is to give us the authority to get things straightened out on our own. That's all we want. You don't have to do anything. Just give us the authority-the White House authority-to go and talk with anybody in the legislative branch and work it out." He said, "We aren't getting anywhere." So I hung up and about 4:15, I called him again. I said, "Jerry, you know the sky is clobbering up and we've got to fly back to Knoxville tonight. The weather is getting bad and we're going to have to leave; now, what do you want to do, because we must have an answer." He said, "Just go ahead, go ahead, do anything you want!"

So with this, Brooks stayed in Washington. He went over the next day to talk to Sam Rayburn and, of course, Brooks Hays being an old member of the Congress, he knew what to do.

GENERAL VOGEL: Marguerite Owen, who had been in the TVA office for
(Cont'd.)

many years, knew everybody on the Hill and, in particular, Bob Kerr, who had been sponsoring the bill. So she called Kerr and we just picked up and left. Well, the upshot of it was that Senator Kerr introduced a resolution in the Senate, which was acted upon unanimously the next day, to the effect that if the President would sign the bill in its present state there would be immediately introduced another bill, which would be passed, to eliminate those two obnoxious paragraphs. In the House it took a little more. Hallack was the Republican leader and he held out against a resolution. Sam Rayburn called Eisenhower and said, "Mr. President, if I can control the majority I expect you to control the minority." So Eisenhower rapped Hallack on the knuckles and the resolution was passed in the House as in the Senate. Eisenhower signed the original bill, and the next day the Congress enacted the amending measure.

DR. CRAWFORD: And that's the way it happened?

GENERAL VOGEL: So, that's the way it happened; and the bill, which emerged finally, was probably the best bill we could get, because it took away the delaying types of control, that might have tied the hands of TVA in the future.

After going back to Knoxville we wrote and sent the following letter to the President, dated August 3rd. "The President, The White House, Washington, D. C., Dear Mr. President, We greatly appreciated the opportunity to meet with

THE 1990s AND THE PRESENT: THE STATE OF MEXICO'S RURAL LANDSCAPE 233

Concerned citizens of Jalisco have proposed a number of measures to combat urban sprawl and its effects. In 1998, the government of Jalisco established the Comisión Estatal para la Conservación del Ambiente (CECA) to combat sprawl and promote sustainable development. In 2000, the government of Jalisco established the Comisión Estatal para la Conservación del Ambiente (CECA) to combat sprawl and promote sustainable development. In 2000, the government of Jalisco established the Comisión Estatal para la Conservación del Ambiente (CECA) to combat sprawl and promote sustainable development. In 2000, the government of Jalisco established the Comisión Estatal para la Conservación del Ambiente (CECA) to combat sprawl and promote sustainable development.

The problem of sprawl has been addressed by the state and national governments, and the movement of people to urban areas has been a major concern.

At the local level, the Comisión Estatal para la Conservación del Ambiente (CECA) has proposed a number of measures to combat sprawl and promote sustainable development. These measures include the establishment of green spaces, the protection of natural resources, and the promotion of sustainable agriculture. The CECA has also proposed the creation of a network of parks and recreation areas, the promotion of non-motorized transportation, and the encouragement of compact urban planning. The CECA has also proposed the creation of a network of parks and recreation areas, the promotion of non-motorized transportation, and the encouragement of compact urban planning.

At the national level, the Comisión Estatal para la Conservación del Ambiente (CECA) has proposed a number of measures to combat sprawl and promote sustainable development. These measures include the establishment of green spaces, the protection of natural resources, and the promotion of sustainable agriculture.

At the international level, the Comisión Estatal para la Conservación del Ambiente (CECA) has proposed a number of measures to combat sprawl and promote sustainable development. These measures include the establishment of green spaces, the protection of natural resources, and the promotion of sustainable agriculture.

At the local level, the Comisión Estatal para la Conservación del Ambiente (CECA) has proposed a number of measures to combat sprawl and promote sustainable development. These measures include the establishment of green spaces, the protection of natural resources, and the promotion of sustainable agriculture.

GENERAL VOGEL: you on July 29, and present to you our views concerning the pending TVA Financing Bill, HR 3460 and the urgent need for its enactment.

Following our meeting with you, we had a further discussion with members of your staff. At this subsequent meeting we presented a one-page memorandum representing the opinion of our general counsel relative to the meeting of HR 3460. The first paragraph of that memorandum is as follows:

HR 3460 does not exempt TVA from the necessary provisions of the Government Corporation Control Act. "(This is what I told Jerry in the meeting.)" TVA will continue to submit this budget program to the President; and the President will continue to submit such program, as modified, amended, or revised to the Congress as part of his annual budget. HR 3460 provides that the issuance and sale of bonds and the expenditure of bonds proceeds shall not be subject to the requirements or limitations of any other law, but the budgetary provisions of the Control Act do not relate to the issuance and sale of bonds or the expenditure of bond proceeds and are therefore not affected by this provision.

The second paragraph of the memorandum refers to certain provisions of HR 3460 now appearing in the subsection (a) of the new subsection 15d which the bill would add to the Tennessee Valley Authority Act. During the discussion with your staff, it was suggested that your reservations concerning the bill might be eliminated by deletion of this language.

GENERAL VOGEL: Subsequently, it was suggested that we write you to
(Cont'd.)

set out in further detail our interpretation of the effect
of the bill after deleting this language.

As stated to you and to your staff, the budgetary provisions of the Government Corporation Control Act cover two in steps: First, our submission to you of our best advance estimates as to power revenues and revenue-bond proceeds available for use and the use we estimate it will be necessary to make of both to meet the demands for electric energy in the area which relies on the Corporation for power; and second, transmission of such estimates as modified, amended, or revised by you to Congress as part of your annual budget. Congressional action would be limited to substantive legislation, since action could not ordinarily be taken through the appropriations procedure. Under the rules of the Congress such action would be considered substantive legislation and, therefore, subject to a point of order. Except in the event of some future congressional action, the legal authority under which TVA might locate, construct, and issue bonds to finance new power generating and transmitting facilities at any time would rest exclusively on the TVA Act and then by the HR 3460 in whatever form HR 3460 may become effective.

We wish again to assure you of our earnest desire to carry out our responsibilities in a manner that will justify the confidence you placed in us in appointing us to the TVA Board. We see nothing in the subject bill that would change

GENERAL VOGEL: the Corporations' basic responsibilities as the
(Cont'd.) supplier of power to a region or alter the relationship existing between you as President and us as members of your appointed Board. Respectively yours, Herbert D. Vogel, Chairman, A. R. Jones, Director, and Brooks Hays, Director."

The President replied to this by a letter dated August 14, 1959, as follows: "Dear Mr. Chairman: I appreciate having your letter of August 3, signed, as well, by the other two members of the Board of Directors of the Tennessee Valley authority. Your letter outlines the Authority's understanding and interpretation of the effect of the TVA revenue bond and financing legislation (HR 3460) as amended by S. 2471. I have today signed S. 2471 and am pleased that it has been possible to work with the Congress, thus improving HR 3460.

As you know, however, public discussion of these two measures, and the legislative history have generated much confusion about the relationship between the President and the Tennessee Valley Authority. In view to this confusion, I am persuaded that as President and Chief Executive I should at this time apprise the Authority of my views as to the nature and requirements of our relationship.

The basic legislation which established the Tennessee Valley Authority, as amended by the recent revenue bond financing bill and by other legislation, places certain responsibilities directly upon the Authorities Board of Directors. No such legislation can, however, alter the basic

GENERAL VOGEL: relationship between the Authority's Board of
(Cont'd.)

Directors and the President in his role of Chief Executive.

The courts have ruled in clear language that the Tennessee Valley Authority is an integral part of the Executive establishment and that its Board Members are therefore, directly responsible to the President as are all other subordinate officers in the Executive Branches.

Your letter of August third, makes it clear that we are in agreement as the Authority's responsibility to submit its annual budget program to the President in accordance to the Government Corporation Control Act. We are further in agreement that the President will continue to transmit such programs-as modified, amended or revised-to the Congress as part of his annual budget for the Executive Branch. Additionally, as President and Chief Executive, I will expect the Authority's Board of Directors in exercising powers conferred by the revenue bond legislation: (1) to include in the Authority's annual budget submissions the Authority's proposed power construction programs; (2) to conform, in accordance with established practices for wholly owned Government corporations, to the general outline of the power construction programs set forth in budget for the Authority as approved and transmitted by the President to the Congress, except as modifications in such programs may be made by law; and (3) not to announce or initiate, without the prior approval of the President, plans for the construction

GENERAL VOGEL: or acquisition for any power-producing projects
(Cont'd.) (including additions of generating units to existing projects)
not previously included in budget programs transmitted by the President to the Congress. Any proposed construction or acquisition of power-producing projects resulting from the reappraisal-referred to in the 1960 Budget-of the Authority's current requirements for additional generating capacity should also be submitted for my prior approval.

I would appreciate receiving the Authority's confirmation of this statement of the nature and requirements of the Authority's relationship with the President."

DR. CRAWFORD: Then it could not have turned out better had you planned it so?

GENERAL VOGEL: No, for in addition to gaining the rights of any other Government corporation, TVA's relationship with the President was clarified for the future. Arguments with the Bureau of the Budget became fewer and differences of opinion were resolved by personal discussions.

Only one other difference with the President arose during my term of office. That related to Executive control by the office of the President. A year later it had become apparent to the Board of Directors that ability to furnish electric power in quantities sufficient to meet the growing demands of the region would depend upon a continuing coal supply as well as adequate power generating facilities. Accordingly, options were taken on certain coal reserves in Kentucky.

GENERAL VOGEL: Subsequent to this action by the Board I received
(Cont'd.)

a letter from the President, dated July 22, 1960, as follows:

"Dear General Vogel, I have been advised that the Tennessee Valley Authority has recently obtained options to purchase extensive coal lands in Kentucky. Since the Tennessee Valley Authority traditionally has secured its coal requirements by competitive bids from commercial sources the exercise of such options and the subsequent extraction of coal would constitute a major policy change.

Inasmuch as the Tennessee Valley Authority is the largest purchaser of coal in this country and the purchase of coal is the largest single item of expense for the Tennessee Valley Authority's power operation, such a major change would have an enormous effect on both your agency and a sector of the private economy.

Accordingly, it is my desire that you obtain a specific approval before exercising options on coal reserves or taking options on any other reserves. Sincerely, Dwight Eisenhower."

In reply to this, we stated the reasons for the action of the Board, explaining the necessity of providing a source of coal for future needs and outlining the general scope of proposed actions. No other objections were forthcoming, to my knowledge.

DR. CRAWFORD: That does not fit very well, does it, with the picture of you the cartoonist painted taking orders from the President?

GENERAL VOGEL: No, but these matters did not arise as the result of personal differences with the President. Either they were the result of misunderstanding or unwarranted attempts by Staff personnel in the office of the President and the Bureau of the Budget to assume the perogatives of the TVA Board. An incident involving both of these factors occurred early in the Kennedy Administration.

We had been making studies over a considerable period of time to determine the best location for what would be the largest, single, power generating unit ever built. It was to be a million KW unit. We had already installed a five hundred megowatt unit at Widow's Creek and a couple of others somewhat larger than that in our Paradise, Kentucky plant. The new unit was to have a capacity of around nine hundred to a million killowats. A great deal depended upon getting it in the right location. Finally, it had come down to a consideration of two locations. One was on the upper Cumberland River in Kentucky; the other on the Clinch River in Tennessee. The studies had progressed to the point, that we were assured of something like a thirty million dollar advantage in building a plant on the Clinch River, because there was sufficient water for cooling purposes there, whereas on the upper Cumberland there was very little flow and it would probably be necessary to construct cooling towers.

As the decision was about to be announced I received a call from the Governor of Kentucky, Bert Combs, telling

GENERAL VOGEL: me that he would like to bring his Lieutenant
(Cont'd.)

Governor and a number of important people of the State, particularly from the upper region of the Cumberland, to my office to discuss the location of the new thermal plant. I tried my best to steer him off and I remember telling him that if the decision should go against him, he might find it embarrassing, particularly if he were to have a large number of supporters with him. I did everything but tell him that we had already reached a decision adverse to his desires. I could not tell him this, because we had received a letter from President Kennedy a few days earlier urging us to select a site in Kentucky. The President's letter stated his desire to improve economic conditions in the Appalachian region by providing a market for its coal and opportunities for labor. In reply we cited the considerations we had given to the two locations, pointing out that the cost would be much less for a plant on the Clinch River and that the only possible impact on the labor market would be during the period of construction. The operating force for an electric generating plant is really very small. Also, whether the plant were built in Kentucky or in Eastern Tennessee, the coal supply would come from the same source in Kentucky.

This letter of ours was sent on a Thursday by special delivery mail to our Washington office with confidence that it would be there the next day, with instructions to have it delivered in person to the White House on Monday.

GENERAL VOGEL: Well, it was in the interim period, over the week-
(Cont'd.)

end, that the Governor of Kentucky called me. Then on Monday he called again, insisting on a meeting, and then yielding to his desire because I felt sure the President had received our reply to his letter, I set it for Thursday afternoon. The Governor came in with his Staff at the appointed time and with a considerable number of people from around the region. Wilson Wyatt, the Lieutenant Governor, did most of the talking, and as he talked my subconscious mind made note of something vaguely familiar in his arguments. The afternoon went on. About four o'clock it seemed that he had exhausted the subject. There was little or nothing that we of TVA could say, for our minds had been made up and we had already advised the White House of our decision. Or so we thought!

DR. CRAWFORD: And the meeting was on Thursday?

GENERAL VOGEL: On Thursday. Thursday after the Monday when the letter should have reached the White House. As the meeting came to an end, someone of our staff came in and told us that there were a number of reporters outside, waiting to hear the outcome of our discussion. With this I turned to the Governor, telling him that I had feared would happen. A meeting by the Governor of Kentucky, and his staff, with the Board of TVA was bound to become known to the Press and the Press could put two and two together. I knew they wanted to find out what decision had been reached and I thought the time had come to put all the cards on the table. We had

GENERAL VOGEL: written the President of our decision, which he
(Cont'd.) should have now had for several days and it seemed pointless to tell the Press that we still did not know what we planned to do. I told the Governor this. We had made a decision and I could see no point in postponing its announcement.

I got home that afternoon rather late and was dressing for an evening with friends at the Cherokee Country Club when the telephone rang in the bedroom. The television was turned on right next to it and the television was announcing that in a few minutes President Kennedy would come on and talk to the people of the United States on the Laos crisis. When I answered the phone, a voice said, "I hear you made a decision on the steam plant today." I said, "We sure did!" Then the voice said, "This is Mike Feldman in the White House. I've just come out from a meeting with President Kennedy and he is hopping mad. He has heard that you made and announced a decision to build the new TVA plant in Tennessee contrary to his stated desires. He wrote you a letter a week ago telling you his views on this and asking for you to explain to him why you would decide one way or the other. He has never had a reply to that letter and he says, "What is the matter with those fellows down there; do they think they are too good to even answer a letter from the President of the United States?" I replied, "We did write a letter. We wrote it in reply to the Presidents' letter which we received a week ago-actually two days more than a week ago. It was answered exactly a week ago and the

GENERAL VOGEL: letter was sent to Washington for personal delivery
(Cont'd.)

to the White House." "Well," he said, "He has never received it. He's hopping mad and he wants to know why you haven't answered. Furthermore, he wants to know by the time he gets back to his office from the broadcast." After hanging up the receiver on the phone I stood for a moment watching the President on the television knowing it wasn't going to take forever for him to finish his talk and that I had to get an answer for him before he got off the television. I called the Washington office of TVA and I got no response. Well, this was about six-thirty in the evening. They had all gone home, of course. There was nobody there. Finally, I managed to reach Marguerite Owen at her apartment.

DR. CRAWFORD: Marguerite Owen?

GENERAL VOGEL: Yes. She had just come in and was fairly out of breath, having probably run to the phone. I said, "Marguerite, what in the world happened? Why didn't you deliver my letter to the President?" She replied, "It was delivered to the President. It came in on Friday, and Monday morning we had a young man in the office take it over to the White House. He went to the right door, as instructed, to present himself and he was ushered to someone to whom he was told to give the letter." Then she added, "We have a receipt to show that it was delivered." "Well," I said, "The President never got it and they tell me he is hopping mad." She said, "Well you tell him to keep on hopping, that it is good for his health." I said, "Marguerite, you're a big help." After that I called

GENERAL VOGEL: Feldman back, but could only verify what I had
(Cont'd.) told him before. The letter had been sent and it had been delivered to the White House. It was up to him to find it!

The next morning I went to my office early and the first thing I did was to call the White House. They had a time locating Feldman, and I could hear the people in a number of offices answer as the call went around. Finally I caught up with him in Lee White's office. Lee White, you know, had been an administrative assistant to Senator John Sherman Cooper of Kentucky before going over to the White House as assistant to the President.

DR. CRAWFORD: Of Kentucky?

GENERAL VOGEL: Yes, and though a Republican he was still a Kentuckian first of all. Things began to connect up in my mind: Feldman in the office of Lee White, who had been assistant to Senator Cooper, who probably had good connections with the Governor of Kentucky. I started out by asking, "How do you feel this morning?" "Oh," he said, "pretty good, pretty good!" "Oh," I said, "You found the letter then?" "Yes," he said, "We found the letter." "Well," I asked, "Where was it?" He replied, "Your man delivered it to someone, who delivered it to someone else, who gave it to Mrs. Lincoln, the President's personal secretary. She put it with some mail, which was supposed to go up to his private quarters, where he looks it over at night. But the letter in question got shuffled in the mail and he really didn't get to see it." Well, this was a pretty vague explanation

GENERAL VOGEL: and more things began to go through my mind. I
(Cont'd.)

remembered how at the meeting with the Governor the argument by Wilson Wyatt had a ring of familiarity. Suddenly it hit me that the order of his argument was the same as the order of facts in our letter to the President. He had been attacking them one by one and in order! Everything suddenly fell into place and I realized what had happened. Lee White had gotten the letter first because it pertained to the TVA, and he probably had copies made and sent to the Governor. He may also have telephoned the Governor, but the letter had probably never left his office. This is all surmise, of course, but it is certain that the President had never received it.

Now my temper rose. I said, "I don't appreciate a bit this interception of official letters between an agency of the Government and the President and I'm burned up about it. I don't think there is anything that you can say to excuse it!" Feldman replied, "Maybe the leak occurred on your end." I said, "Let me tell you, the people here in TVA are all old timers, responsible government employees, they understand the protocol of Government. They are not a bunch of Johnny-come-latelys." And with that I hung up the receiver." (Laughter)

A week passed. It was again Thursday evening and my wife and I were again dressing for dinner at the Country Club. Again the phone rang and again it was Mike Feldman. He said to me, "I have just been talking with the President.

GENERAL VOGEL: He has now had an opportunity to read your letter.
(Cont'd.)

He has written a reply to it and he is asking, will it be all right with you now if he releases both your letter and his reply to the Press!"

It was only just a short time after that that we were invited, my wife and I, to the first formal dinner of the Kennedys in the White House. So I must say for Mr. Kennedy that he was one to understand a situation when it was explained to him, and one to put things right.

DR. CRAWFORD: Do you suppose that he ever understood what happened to the correspondence in the White House?

GENERAL VOGEL: I doubt that he was ever told all the details. He knew, of course, by the date on the letter and the fact that it was personally delivered that we had not ignored his letter to us. He couldn't help knowing it had been kicking around the White House somewhere and that it had not gotten to him as it should. He appreciated, I am sure, that we had based our decision on the economics of the situation and were doing what we deemed right for the Valley without regard to political pressures. This has been the real strength of the TVA: its separation from control by political elements of Government. So long as TVA gets good directors, men of conscience, men who will accept the responsibilities of office unselfishly, it has the makings of the finest organization possible.

DR. CRAWFORD: I believe that's the only sensible solution in regard to placing things, your plants, your dams, and so forth-to say we will put them where the economic studies and

DR. CRAWFORD: the engineering studies indicate.
(Cont'd.)

GENERAL VOGEL: It is one thing, of course, to say this and another to achieve it. One of the most remarkable things about the Tennessee Valley Authority is that over the years the Directors have all been good and honorable men. One may comment on their personalities, their training or backgrounds, but there has never been a rascal among them. All have been men of high principles, who have worked as they could for the organization, developing the highest esprit de corps. As you look back you wonder how in the World this could have come about, because by the law of averages there should have been a bad egg somewhere-and there simply has not been one in this case. With the right kind of directors, regardless of personality variances the resulting organization is bound to be good.

It is not widely known, but when it came to developing the Indus Valley in West Pakistan an organization of the Government out there was created in the pattern of TVA to administer the project. Pakistan was made in two parts by cutting off pieces on the east and west of India. The Indus River runs South from the Himalayan Mountains through West Pakistan and the Brahmaputra traverses the East. Shortly after the separation, the Indian Government started building dams on the eastern tributaries of the Indus. This posed a threat to lands downstream in West Pakistan where water was needed to irrigate and nourish that part of the

GENERAL VOGEL: valley. Affairs came to a breaking point when the
(Cont'd.)

Indians made a move into the Kashmir, in the upper regions of the Indus basin. The Pakistanans then reacted with armed forces and the Armies met on a line in the Kashmir where they stood glaring at each other. About this time Collier's magazine thought they would like to have an article on this and Lilienthal, an early Director of TVA, was asked to look into the situation and write an article on it. He concluded his article with some suggestion to the effect that an international agency should deal with the problem, because there had to be a solution short of armed conflict. Eugene Black was president of the World Bank at the time. He read the article and concluded that the World Bank was the proper agency to undertake a settlement. General Raymond Wheeler, a retired Chief of Engineers, was then Engineer Advisor to the Bank. He was given the assignment of bringing the Pakistanis and the Indians into agreement. This was a difficult job because of the high feelings engendered by religious differences. They were in agreement on one thing only. Both respected General Wheeler whom they had known for his leadership during the China-Burma-India campaign of World War II.

Time after time, they would meet, get into heated arguments, break up the meeting and go home. Then Wheeler would bring them together again. Finally, they evolved the Indus Basin Treaty, whereby it was agreed that a number of

GENERAL VOGEL: countries, who preferred a peaceful settlement
(Cont'd.)
to war, would put up a large sum of money running to about
a billion and half dollars, augmented by small amounts from
India and Pakistan, to develop and implement a plan for
supply in water to the Eastern tubutaries of the Indus in
lieu of that withdrawn by India.

The World Bank assumed the responsibility of
implementing the plan. The countries contributing were the
United States, Great Britain, Canada, Australia, New Zealand
and Federal Republic of Germany. An organization had to
set up first of all to direct activities in Pakistan. TVA
served as the model with three Directors and personnel drawn
largely from the irrigation organizations. Fortunately
as with TVA the right kind of men were found to head up the
organization, which became known as the West Pakistan Water
and Power Authority (WAPDA). Honest and dedicated as they
were, however, they required technical guidance. Mangla
Dam, one of the largest in the world, was to be built and
there were to be link canals and barrages of great magnitude.
So they obtained the services of an American engineering
firm for general guidance and other consulting firms for the
various parts of the project.

Without going into details, it can be said that the
Indus Basin Project has been a great success. There is still
work to be done-another large dam to be completed-but lands
of West Pakistan, once brown and barren-are now greening

GENERAL VOGEL: with wheat and other crops for sustenance of the
(Cont'd.) population. One can look upon it as a long green shadow of
TVA reaching half-way around the World.

and an uncommunicated source related some of the... *Admiral* ...
of naval forces (and) it was the great work of a wise and judicious
and bold and enterprising and patriotic and







